APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,735	05/25/2004	Chih-Chiang Wen	MTKP0165USA	3734

27765   7590   08/26/2009
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER
PORTKA, GARY J

ART UNIT	PAPER NUMBER
2187	

NOTIFICATION DATE	DELIVERY MODE
08/26/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com
Patent.admin.uspto.Rcv@naipo.com
mis.ap.uspto@naipo.com.tw

	Application No.	Applicant(s)
Office Action Summary	10/709,735	WEN ET AL.
	Examiner	Art Unit	
	GARY PORTKA	2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *27 May 2009*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-4,7,8,10-12,14-16,18-23,25-28 and 30-35* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-4,7,8,10-12,14-16,18-23,25-28 and 30-35* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1, 10-12, 16, 21-22, 25-27, and 33-34 were amended, and claim 9 was

canceled by Applicant. Claims 1-4, 7-8, 10-12, 14-16, 18-23, 25-28, and 30-35 are

pending.

Response to Arguments

2.   Applicant's arguments have been considered but are not persuasive.   It is noted

that while it was stated previously that Hu does not disclose initialization data received

from the host, as discussed below it is clear that Hu describes a typical firmware

update, before a device can be initialized, and thus initialization data as recited.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 7, 11, 15, 16, 20, 21, 25, 27, and 30 are rejected under 35

U.S.C. 103(e) as being obvious over Lewis et al., US 2003/0097552 A1 (hereinafter

"Lewis").

5.   As to claims 1, 7, 11, 15, 16, 20, 21, 25, 27, and 30, Lewis discloses a circuit

(Fig. 1), download mode, computer system, and controller comprising bus interface (at

106) for communications with a host (management device, 0010), an interface unit

electrically coupled to the bus interface for downloading operational firmware from the

host (connections between 106 and 112), a control circuit (including 110, 114, 116, and

their connections) electrically coupled to the interface unit for transferring the

downloaded operation firmware to a volatile memory (112), microprocessor (108)

electrically coupled to the control circuit for executing the downloaded operational

firmware while stored in the volatile memory, wherein the microprocessor controls the

normal operations of the device circuit according to the downloaded firmware (see

Abstract, 0010, 0027, 0038). Lewis also discloses receiving initialization data from the

host (0030, 0031, 0039, "boot PROM routines"). The download of the operational

firmware can be considered in the recited startup procedure to the extent claimed.

6.   Lewis does not specifically disclose that the initialization data is received in the

startup procedure. However, Lewis provides two teachings that would have made this

obvious to one of ordinary skill in the art. First, Lewis teaches that communication

device design can be simplified by eliminating the need for non-volatile firmware storage

media on the device (0027). Second, Lewis teaches that the boot prom code, device id,

and flash firmware (of Fig. 1) may all be stored in the flash memory (0039). Clearly an

artisan would have recognized that the benefits of simplified device by eliminating the

flash memory, applied to a flash containing firmware and boot prom code, and even the

device ID, would have provided the same simplification of the device, and thus would

have been obvious to try. Thus it would have been obvious to include the receiving of

the initialization date in the startup procedure, because it was taught that the firmware

could advantageously contain both the firmware and the initialization data, and that the

firmware could beneficially be eliminated from the device to simplify it.

7.   Claims 2, 8, 10, 12, 14, 18-19, 22-23, 26, 28, and 31-35 are rejected under 35

U.S.C. 103(e) as being obvious over Lewis et al., US 2003/0097552 A1 (hereinafter

"Lewis") and Hu, US 6,170,043 B1 (hereinafter "Hu").

8.   As to claims 2, 14, 18, 23, and 28, Hu further discloses the circuit of claim 1

wherein the bus interface conforms to USB, IDE, SATA, SAS, or SCSI interface

standards (Fig. 2, col. 2 lines 59-65, col. 3 lines 45-46).   These would have been

obvious to an artisan to add to the Lewis system discussed above to provide

compatibility with systems using these standards.

9.   As per claims 8, 31, 34, and 35, Hu further discloses the circuit of claim 1

wherein the microprocessor executes the downloaded operational firmware without

accessing a non-volatile memory, accessing volatile memory (Fig. 2, 212 and 202, col.

3 lines 48-57, col. 4 lines 8-19, col. 6 lines 17-28).   This would have been obvious to an

artisan to add to the Lewis system discussed above to avoid or reduce the need for the

expense of non-volatile memory, and/or its reduced performance versus RAM.

10.   As to claims 10 and 26, Lewis further discloses the circuit of claim 1 wherein the

volatile memory comprises the downloaded operational firmware being executed by the

microprocessor to control normal operations of the circuit (0010).

11.   As to claims 12 and 22, Hu further discloses the circuit of claim 1 wherein the

normal operations of the circuit at least include reading data from an optical disc (col. 3

lines 62-66), and controlling its rotation.   This would have been obvious to an artisan to

add to the Lewis system discussed above to use these firmware update circuits for an

optical disk drive.

12.   As to claim 19, the disclosure of Hu discussed above includes the method of

claim 16 further comprising the device transmitting an electrical signal to an application

program in the host to begin downloading the operational firmware (col. 5 lines 25-29),

which would have been obvious to an artisan to add to the Lewis system discussed

above to be able to determine whether firmware versions need to be updated.

13.   As to claims 32, 33, Hu further discloses the circuit of claim 27 wherein the host

system comprises the volatile memory, or shared by the host and the microprocessor

(Figure 2, #212 & col. 4 lines 8-19). This would have been obvious to an artisan to add

to the Lewis system discussed above to avoid the expense or space limitations of

separate volatile memory at the device.

14.   Claims 3 & 4 are rejected under 35 U.S.C. 103(a) as being obvious over Lewis,

in view of Kamihara et al., US PGPub 2002/0169904, herein Kamihara.

15.   Lewis does not disclose using macros. However, as per claim 3, Kamihara

teaches the use of a circuit like that of claim 1 wherein the interface unit is a macro

(Figure 6, #20 & ¶0095).

16.   As to claim 4, Kamihara further discloses the circuit of claim 3 wherein the macro

comprises handshaking, data reception, and writing received data into the memory

functions [¶0095-0097 & ¶0102].

17.   Lewis and Kamihara are analogous art because they are from the same field of endeavor: computer system memory management. At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine a macro interface unit, as disclosed by Kamihara, within the system disclosed by the Lewis. The motivation for doing so would have been for the benefit of aiding the implementation of data transfers, as taught by Kamihara in ¶0096.

Conclusion

18.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary J. Portka whose telephone number is (571) 272-4211. The examiner can normally be reached on M-F 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on (571) 272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gary J Portka/

Primary Examiner

Art Unit 2187

August 24, 2009